

**ABSTRACT**

A network interface adapter provides a host processor with two complementary modes of submitting descriptors to be executed by the adapter: a normal mode, in which the host writes descriptors to a system memory and rings an assigned doorbell to notify the adapter; and a priority mode, in which the host writes the descriptor itself to a doorbell address of the adapter. In the priority mode, the adapter is relieved of the need to read the descriptor from the memory, and can thus begin execution as soon as it has resources available to do so.